



Government of **Western Australia**
School Curriculum and Standards Authority

MATERIALS DESIGN AND TECHNOLOGY

ATAR course

Year 12 syllabus – What’s changing: General capabilities

For teaching in 2027

Acknowledgement of Country

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

Background

As part of the Western Australian Certificate of Education (WACE) Refreshment to investigate the assessment and reporting of the general capabilities on the Western Australian Statement of Student Achievement (WASSA), the Authority has updated the statements about the general capabilities in each syllabus.

The Authority has mapped the general capabilities through the unit content and assessment types for each of the WACE courses. Students will have the opportunity to develop the general capabilities identified in the course through the teaching, learning and assessment programs. These general capabilities will be reflected on the WASSA.

Important information

WACE Refreshment: Investigating the assessment and reporting of the general capabilities on the Western Australian Statement of Student Achievement (WASSA)

This document contains information that will be included in the syllabus effective from 1 January 2027.

Users of the syllabus are responsible for checking its currency.

Syllabuses are formally reviewed by the Authority on a cyclical basis, typically every five years.

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Representation of the general capabilities

The general capabilities encompass the knowledge, skills, behaviours and dispositions that will support students to live and work successfully now and into the future. Teachers should find opportunities to incorporate the following capabilities into the teaching and learning program for the Materials Design and Technology ATAR course. The general capabilities are not assessed unless they are identified within the specified unit content.

Critical and creative thinking

The course fosters critical and creative thinking through implementation of an iterative design process. Through inquiry, students consider alternatives and modify-design ideas and the development of a production plan for the manufacture of a product. They develop understanding and skills in critical and creative thinking to achieve their designed solution. In the generating phase, students creatively develop innovative and practical solutions using a variety of materials and techniques.

The course promotes analytical thinking as students evaluate design options; consider functionality, sustainability and aesthetic factors; and make informed decisions. Reflection is embedded throughout, encouraging students to critique their processes, justify choices and identify areas for improvement. This iterative approach supports the development of transferable thinking skills and problem-solving abilities that students will use to navigate factors of complex design with creativity and critical insight to develop design solutions.

Digital literacy

This course encourages the application and development of digital literacy skills by engaging students in activities that involve opportunities for investigating, creating and exchanging information through digital means. Students apply skills, strategies and techniques through the application of digital tools to research and develop ideas, demonstrate innovation and communicate their design ideas and solutions effectively using digital platforms. Students apply design thinking processes that incorporate digital technologies to present, refine, develop and modify design solutions and presentations. Students research and source information from a variety of digital platforms to locate, access, process and analyse information.

Personal and social capability

The course supports the development of personal and social capabilities by encouraging students to develop self-management and social management throughout the design and production process. Students develop communication skills and independent self-management skills by safely and effectively managing their time and resources, demonstrating resilience when faced with challenges and achieving quality production outcomes.

Social awareness is fostered by exploring the impact of materials selection, product design and manufacturing technologies on the society and the environment. Students develop increasing social awareness through the study of the impact of the use of materials, and manufacturing technology in society and on the environment.

Addressing the other general capabilities

Although the following general capabilities have not been identified as a focus in the Materials Design and Technology ATAR Year 12 syllabus, teachers may find opportunities to incorporate these capabilities into the teaching and learning program.

- Ethical understanding
- Intercultural understanding
- Literacy
- Numeracy

Such opportunities may occur through the application of different contexts, pedagogical practices and/or assessment strategies that relate to the syllabus as part of the teaching and learning program.

Summary representation of the general capabilities in the Materials Design and Technology ATAR course

A representation of the general capabilities for the two years is summarised in the table below.

Year	Course	Course type	General capabilities						
			CCT	DL	EU	IU	L	N	PSC
Year 11	Materials Design and Technology (Metals) (AEMDTM, A1MDTM, A2MDTM) Materials Design and Technology (Textiles) (AEMDTT, A1MDT, A2MDTT) Materials Design and Technology (Wood) (AEMDTW, A1MDTW, A2MDTW)	ATAR	✓	✓					✓
Year 12	Materials Design and Technology (Metals) (AEMDTM) Materials Design and Technology (Textiles) (AEMDTT) Materials Design and Technology (Wood) (AEMDTW)	ATAR	✓	✓					✓

Key

CCT: Critical and creative thinking, DL: Digital literacy, EU: Ethical understanding, IU: Intercultural understanding, L: Literacy, N: Numeracy, PSC: Personal and social capability